



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
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186441

D350-748-203

Job Sheet 193226



CR2

Part No: D350-748-203

Job Qty: 1 pcs

Part Name: AS350 / AS355 Stainless Steel Aft Crosstube



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 4/9/19

Job Tracking No: 15044

Due Date: 5/20/19

Created By: Dara Macdonald

Type: ~~SOLD~~ *SLH*

Description: *SLH*

Note: D350-748-243 REV:A IPP REV:A 15.03.23 NEW ISSUE DD VERF;JLM

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation             | Qty   | Start Date | Due Date | Standard  |         | Workcenter/Supplier  | Sign-off       |
|-------|-----------------------|-------|------------|----------|-----------|---------|----------------------|----------------|
|       |                       |       |            |          | Setup Hrs | Run Hrs |                      |                |
| 110   | Crosstubes - Bend - 1 | 1 pcs | 5/20/19    | 5/20/19  | 0.00      | 2.44    | Crosstubes - Bend    | GP/BB 19-05-21 |
| 120   | Crosstubes - 2 - B4B  | 1 pcs | 5/20/19    | 5/20/19  | 0.00      | 2.19    | Crosstubes - 1 - B4B | N/R            |
|       |                       |       |            |          |           |         | Crosstubes - 2 - B4B |                |
|       |                       |       |            |          |           |         | Crosstubes - 3 - B4B |                |
|       |                       |       |            |          |           |         | Crosstubes - 4 - B4B |                |
| 127   | QC 15                 | 1 pcs | 5/20/19    | 5/20/19  | 0.00      | 0.00    | QC 15 - 12           |                |
|       |                       |       |            |          |           |         | QC 15 - 3            |                |
|       |                       |       |            |          |           |         | QC 15 - 47           |                |
|       |                       |       |            |          |           |         | QC 15 - 49           |                |
|       |                       |       |            |          |           |         | QC 15 - 58           |                |
|       |                       |       |            |          |           |         | QC 15 - 9            | DAS            |
| 128   | Crosstubes - 3 - B4B  | 1 pcs | 5/20/19    | 5/20/19  | 0.00      | 1.98    | Crosstubes - 1 - B4B | MAY 23 2019 68 |
|       |                       |       |            |          |           |         | Crosstubes - 2 - B4B | 9-89           |
|       |                       |       |            |          |           |         | Crosstubes - 3 - B4B |                |
|       |                       |       |            |          |           |         | Crosstubes - 4 - B4B |                |
| 130   | Crosstubes - 4 - B4B  | 1 pcs | 5/20/19    | 5/20/19  | 0.00      | 2.89    | Crosstubes - 1 - B4B |                |
|       |                       |       |            |          |           |         | Crosstubes - 2 - B4B |                |
|       |                       |       |            |          |           |         | Crosstubes - 3 - B4B |                |
|       |                       |       |            |          |           |         | Crosstubes - 4 - B4B | GP 14-05-28    |
| 140   | QC 5                  | 1 pcs | 5/20/19    | 5/20/19  | 0.00      | 0.00    | QC 5 - 10            |                |
|       |                       |       |            |          |           |         | QC 5 - 12            |                |
|       |                       |       |            |          |           |         | QC 5 - 17            |                |
|       |                       |       |            |          |           |         | QC 5 - 18            |                |
|       |                       |       |            |          |           |         | QC 5 - 19            |                |
|       |                       |       |            |          |           |         | QC 5 - 22            |                |
|       |                       |       |            |          |           |         | QC 5 - 24            |                |
|       |                       |       |            |          |           |         | QC 5 - 3             |                |
|       |                       |       |            |          |           |         | QC 5 - 43            |                |
|       |                       |       |            |          |           |         | QC 5 - 49            |                |
|       |                       |       |            |          |           |         | QC 5 - 51            |                |



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Container No: S182606



Part: D350-748-203

Job No: 193226

Serial No/Batch: S182606

Revision: A

Inspector:

Exp Date:

Instructions: TC STC SH06-27 Issue 2, FAA STC SR02359NY 11/03/04, EASA S



|                                   |       |         |           |                        |             |      |
|-----------------------------------|-------|---------|-----------|------------------------|-------------|------|
|                                   |       |         |           | QC 5 - 58              |             | DAS  |
|                                   |       |         |           | QC 5 - 68              | MAY 30 2019 | 68   |
|                                   |       |         |           | QC 5 - 9               |             | 9-89 |
|                                   |       |         |           | QC 5 - 50              |             |      |
|                                   |       |         |           | QC 5 - 30              |             |      |
|                                   |       |         |           | QC 5 - 40              |             |      |
| 174 Outsource                     | 1 pcs | 5/20/19 |           | SKY002-VC              | 2019-05-30  |      |
| 176 Packaging 2-1 - Receive - B4B | 1 pcs | 5/20/19 | 0.00 0.00 | Packaging 2 - 1 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 2 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 3 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 5 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 4 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 6 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 7 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 8 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 9 - B4B  |             |      |
|                                   |       |         |           | Packaging 2 - 10 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 11 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 12 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 13 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 14 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 15 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 16 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 17 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 18 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 19 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 20 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 21 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 22 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 23 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 24 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 25 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 26 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 27 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 28 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 29 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 30 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 31 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 32 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 33 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 34 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 35 - B4B |             |      |
|                                   |       |         |           | Packaging 2 - 36 - B4B |             |      |
| 178 QC 6                          | 1 pcs | 5/20/19 | 0.00 0.00 | QC 6 - 9               |             | DAS  |
|                                   |       |         |           | QC 6 - 68              | JUN 03 2019 | 68   |
|                                   |       |         |           | QC 6 - 61              |             | 9-89 |
| 180 Spray Paint - 2 - B4B         | 1 pcs | 5/20/19 | 0.00 1.07 | Spray Paint - 1 - B4B  | 19-6-2      |      |
|                                   |       |         |           | Spray Paint - 2 - B4B  |             |      |
|                                   |       |         |           | Spray Paint - 3 - B4B  |             |      |
|                                   |       |         |           | Spray Paint - 4 - B4B  |             |      |
| 190 QC 14                         | 1 pcs | 5/20/19 | 0.00 0.00 | QC 14 - 15             |             |      |
|                                   |       |         |           | QC 14 - 2              |             |      |
|                                   |       |         |           | QC 14 - 34             |             |      |
|                                   |       |         |           | QC 14 - 41             |             |      |
|                                   |       |         |           | QC 14 - 51             |             |      |
|                                   |       |         |           | QC 14 - 58             |             |      |
|                                   |       |         |           | QC 14 - 59             |             |      |
|                                   |       |         |           | QC 14 - 9              |             |      |
|                                   |       |         |           | QC 14 - 68             | JUN 10 2019 | 68   |
|                                   |       |         |           |                        |             | 9-89 |

9-88

JUN 24 2018

DAS

QC 5 - 68  
QC 5 - 58  
QC 5 - 51  
QC 5 - 49  
QC 5 - 43  
QC 5 - 3  
QC 5 - 24  
QC 5 - 22  
QC 5 - 19  
QC 5 - 18  
QC 5 - 17  
QC 5 - 12  
QC 5 - 10

5/20/19 0.00 0.00

1 pcs

210 QC 5

Crosstubes - 4 - B4B  
Crosstubes - 3 - B4B  
Crosstubes - 2 - B4B  
Crosstubes - 1 - B4B

5/20/19 0.00 2.89

1 pcs

200 Crosstubes - 5 - B4B

QC 6 - 61  
QC 6 - 66  
QC 6 - 9

5/20/19 0.00 0.00

1 pcs

197 QC 6

Packaging 2 - 36 - B4B  
Packaging 2 - 35 - B4B  
Packaging 2 - 34 - B4B  
Packaging 2 - 33 - B4B  
Packaging 2 - 32 - B4B  
Packaging 2 - 31 - B4B  
Packaging 2 - 30 - B4B  
Packaging 2 - 29 - B4B  
Packaging 2 - 28 - B4B  
Packaging 2 - 27 - B4B  
Packaging 2 - 26 - B4B  
Packaging 2 - 25 - B4B  
Packaging 2 - 24 - B4B  
Packaging 2 - 23 - B4B  
Packaging 2 - 22 - B4B  
Packaging 2 - 21 - B4B  
Packaging 2 - 20 - B4B  
Packaging 2 - 19 - B4B  
Packaging 2 - 18 - B4B  
Packaging 2 - 17 - B4B  
Packaging 2 - 16 - B4B  
Packaging 2 - 15 - B4B  
Packaging 2 - 14 - B4B  
Packaging 2 - 13 - B4B  
Packaging 2 - 12 - B4B  
Packaging 2 - 11 - B4B  
Packaging 2 - 10 - B4B  
Packaging 2 - 9 - B4B  
Packaging 2 - 8 - B4B  
Packaging 2 - 7 - B4B  
Packaging 2 - 6 - B4B  
Packaging 2 - 4 - B4B  
Packaging 2 - 5 - B4B  
Packaging 2 - 3 - B4B  
Packaging 2 - 2 - B4B  
Packaging 2 - 1 - B4B

5/20/19 0.00 0.00

1 pcs

195 Packaging 2-1 - Receive - B4B

QC 14 - 40  
QC 14 - 19  
ATE003-VC

5/20/19 0.00 0.00

1 pcs

193 Outsource - 11 - Paint

5

NR

N/A



|                                          |         |           |                        |                   |
|------------------------------------------|---------|-----------|------------------------|-------------------|
| 220 Packaging 1-1 - Pick Kit - B4B 1 pcs | 5/20/19 | 0.00 0.00 | QC 5 - 9               |                   |
|                                          |         |           | QC 5 - 50              |                   |
|                                          |         |           | QC 5 - 30              |                   |
|                                          |         |           | QC 5 - 40              |                   |
|                                          |         |           | Packaging 1 - 1 - B4B  |                   |
|                                          |         |           | Packaging 1 - 2 - B4B  |                   |
|                                          |         |           | Packaging 1 - 3 - B4B  |                   |
|                                          |         |           | Packaging 1 - 4 - B4B  |                   |
|                                          |         |           | Packaging 1 - 5 - B4B  | DAS<br>28<br>9-89 |
|                                          |         |           | Packaging 1 - 6 - B4B  |                   |
|                                          |         |           | Packaging 1 - 7 - B4B  |                   |
|                                          |         |           | Packaging 1 - 8 - B4B  |                   |
|                                          |         |           | Packaging 1 - 9 - B4B  |                   |
|                                          |         |           | Packaging 1 - 10 - B4B |                   |
|                                          |         |           | Packaging 1 - 11 - B4B |                   |
|                                          |         |           | Packaging 1 - 12 - B4B |                   |
|                                          |         |           | Packaging 1 - 13 - B4B |                   |
|                                          |         |           | Packaging 1 - 14 - B4B |                   |
|                                          |         |           | Packaging 1 - 15 - B4B |                   |
|                                          |         |           | Packaging 1 - 16 - B4B |                   |
|                                          |         |           | Packaging 1 - 17 - B4B |                   |
|                                          |         |           | Packaging 1 - 18 - B4B |                   |
|                                          |         |           | Packaging 1 - 19 - B4B |                   |
|                                          |         |           | Packaging 1 - 20 - B4B |                   |
|                                          |         |           | Packaging 1 - 21 - B4B |                   |
|                                          |         |           | Packaging 1 - 22 - B4B |                   |
|                                          |         |           | Packaging 1 - 23 - B4B |                   |
|                                          |         |           | Packaging 1 - 24 - B4B |                   |
|                                          |         |           | Packaging 1 - 25 - B4B |                   |
|                                          |         |           | Packaging 1 - 26 - B4B |                   |
|                                          |         |           | Packaging 1 - 27 - B4B |                   |
|                                          |         |           | Packaging 1 - 28 - B4B |                   |
|                                          |         |           | Packaging 1 - 29 - B4B |                   |
|                                          |         |           | Packaging 1 - 30 - B4B |                   |
|                                          |         |           | Packaging 1 - 31 - B4B |                   |
|                                          |         |           | Packaging 1 - 32 - B4B |                   |
|                                          |         |           | Packaging 1 - 33 - B4B |                   |
|                                          |         |           | Packaging 1 - 34 - B4B |                   |
|                                          |         |           | Packaging 1 - 35 - B4B |                   |
|                                          |         |           | Packaging 1 - 36 - B4B |                   |
| 230 QC 4                                 | 1 pcs   | 5/20/19   | 0.00 0.00              | QC 4 - 28         |
|                                          |         |           |                        | QC 4 - 58         |
|                                          |         |           |                        | QC 4 - 69         |
|                                          |         |           |                        | QC 4 - 9          |
|                                          |         |           |                        | QC 4 - 46         |
| 240 Packaging 3-1 - Stock - B4B 1 pcs    | 5/20/19 | 0.00 0.00 | Packaging 3 - 1 - B4B  |                   |
|                                          |         |           | Packaging 3 - 2 - B4B  |                   |
|                                          |         |           | Packaging 3 - 3 - B4B  |                   |
|                                          |         |           | Packaging 3 - 4 - B4B  |                   |
|                                          |         |           | Packaging 3 - 5 - B4B  |                   |
|                                          |         |           | Packaging 3 - 6 - B4B  |                   |
|                                          |         |           | Packaging 3 - 7 - B4B  | Smr MB 07/03/2019 |
|                                          |         |           | Packaging 3 - 8 - B4B  |                   |
|                                          |         |           | Packaging 3 - 9 - B4B  |                   |
|                                          |         |           | Packaging 3 - 10 - B4B |                   |
|                                          |         |           | Packaging 3 - 11 - B4B |                   |
|                                          |         |           | Packaging 3 - 12 - B4B |                   |
|                                          |         |           | Packaging 3 - 13 - B4B |                   |
|                                          |         |           | Packaging 3 - 14 - B4B |                   |

|                  |       |         |           |                        |                 |
|------------------|-------|---------|-----------|------------------------|-----------------|
|                  |       |         |           | Packaging 3 - 15 - B4B |                 |
|                  |       |         |           | Packaging 3 - 16 - B4B |                 |
|                  |       |         |           | Packaging 3 - 17 - B4B |                 |
|                  |       |         |           | Packaging 3 - 18 - B4B |                 |
|                  |       |         |           | Packaging 3 - 19 - B4B |                 |
|                  |       |         |           | Packaging 3 - 20 - B4B |                 |
|                  |       |         |           | Packaging 3 - 21 - B4B |                 |
|                  |       |         |           | Packaging 3 - 22 - B4B |                 |
|                  |       |         |           | Packaging 3 - 23 - B4B |                 |
|                  |       |         |           | Packaging 3 - 24 - B4B |                 |
|                  |       |         |           | Packaging 3 - 25 - B4B |                 |
|                  |       |         |           | Packaging 3 - 26 - B4B |                 |
|                  |       |         |           | Packaging 3 - 27 - B4B |                 |
|                  |       |         |           | Packaging 3 - 28 - B4B |                 |
|                  |       |         |           | Packaging 3 - 29 - B4B |                 |
|                  |       |         |           | Packaging 3 - 30 - B4B |                 |
|                  |       |         |           | Packaging 3 - 31 - B4B |                 |
|                  |       |         |           | Packaging 3 - 32 - B4B |                 |
|                  |       |         |           | Packaging 3 - 33 - B4B |                 |
|                  |       |         |           | Packaging 3 - 34 - B4B |                 |
|                  |       |         |           | Packaging 3 - 35 - B4B |                 |
|                  |       |         |           | Packaging 3 - 36 - B4B |                 |
| 245 DC - 1 - B4B | 1 pcs | 5/20/19 | 0.00 0.00 | DC - 1 - B4B           | DAS JUL 04 2019 |
|                  |       |         |           | DC - 2 - B4B           | 21              |
| 250 QC 21 - FG   | 1 pcs | 5/20/19 | 0.00 0.00 | QC 21 - FG - 21        | 9-88            |
|                  |       |         |           | QC 21 - FG - 70        | DAS JUL 04 2019 |
|                  |       |         |           | QC 21 - FG - 53        | 21              |

Part Op 110 - CNC Alpha 160 Bender - Bend tube as per Dwg D350-748-243 using CNC bender program D350A and Folio  
 Descriptions: FT \*\*\*\*\*UNDER BEND .225" PER SIDE\*\*\*\*\* USE (4) DT9824 SHIM BLOC TO CHECK STRAIGHTNESS\*\*\*\*  
 120 - Crosstubes \*\*\*\*\*VERIFY CROSSTUBE DIMENSIONS AS PER DWG\*\*\*\*  
 127 - QC15- Crosstube Dimensional Check \*\*\*MARK CUT LINES\*\*\*  
 128 - Crosstubes - CUT TUBE AT HEIGHT ON FAI SHEET VERF HEIGHT \_\_\_\_\_ BY QC 15 LEVEL INSPECTOR  
tw/sf 0.130  
 130 - Crosstubes - 1- Drill Tube as per Dwg D350-748-243 Using DT8876 Drill Jigs, set-up drill table as per QSI 010. 2-  
 Deburr 3- Engrave Part # and Batch # as per Dwg D350-748-243 4- Remove all marks from tube within limits of D350-  
 748-243  
 140 - QC5- Inspect part completeness to step on W/O  
 174 - ISSUE P/O TO SKY SERVICE: \_\_\_\_\_  
 176 - Receive & Inspect for Damage & Mat'l Certs  
 178 - QC6- All purchased or subcontracted products  
 180 - Spray Paint / NDT Room \*\*\*VERIFY BY \_\_\_\_\_ BATCH # TO MATCH W/O \_\_\_\_\_ \*\*\*MASK  
 SCRIBE B# & P# AND VERIFY\*\*\* 1. Apply Axalta 13205S Cleaner inside and outside crosstube per QSI 005 4.1.4  
 BATCH: 5138949 2. Axalta 230S Metalok inside and outside crosstube per QSI 005 4.1.4 BATCH: 138021 3.  
 Prime inside and outside crosstube per QSI 005 4.2 BATCH: 5154137 4. Paint outside of crosstube per QSI 005 4.2  
 BATCH: 5184740  
 190 - QC14- Inspect Spray Paint - Then, Wrap in plastic bag to protect from scratches \*\*\*VERIFY BY \_\_\_\_\_ BATCH  
 # TO MATCH W/O \_\_\_\_\_  
 193 - outsource Paint ISSUE P/O: \_\_\_\_\_ 1. Apply Axalta 13205S Cleaner inside and outside crosstube  
 per QSI 005 4.1.4 BATCH: \_\_\_\_\_ 2. Axalta 230S Metalok inside and outside crosstube per QSI 005 4.1.4 BATCH:  
 \_\_\_\_\_ 3. Prime inside and outside crosstube per QSI 005 4.2 BATCH: 5154137 4. Paint outside of crosstube per  
 QSI 005 4.2 BATCH: 5184740 C OF C IS REQUIRED  
 200 - Crosstubes - INSTALL GROUND WIRE INSERT, THEN INSERT SCREW AND WASHER \*\*\*LIMIT AIR PRESSURE  
 TO 50 PSI WHEN INSTALLING AETC-1032 INSERT AND ONLY EXPAND INSERT ONCE\*\*\* 1-Abrade mating surfaces  
 of support and crosstube with 180 grit sandpaper, clean the area with MEK or equivalent as per dwg 2-Install supports  
 with Proseal 890 per D350-748-243 and QSI 015 A/R Proseal 890 Batch: 5126610 EXP: 19-10 3-  
 Install supports clamps Using Dt8876 as per Dwg D350-748-243, Torque to 60-80 IN-LBS. PROSEAL CURE TIME 72  
 HOURS: Start: 19-6-22 Finish: 19-6-25  
 210 - QC5- Inspect part completeness to step on W/O \*\*\*RE-CHECK TORCQUE ON CLAMP AFTER PROSEAL HAS  
 CURED FOR 72HOURS AS PER DWG.\*\*\* \*\*\*VERIFY BY \_\_\_\_\_ BATCH # TO MATCH W/O \_\_\_\_\_  
 220 - Pick Kit  
 230 - QC4- 100% Inspect kits for completeness \*\*\*VERIFY BY \_\_\_\_\_ BATCH # TO MATCH W/O \_\_\_\_\_  
 240 - Identify and pack for shipping as per PPPD350-748-203 Location: FG PPP Rev: \_\_\_\_\_  
 245 - Document Control - Photocopy bluefile & type labels per PPPD350-748-203 CHG001  
 250 - QC21- Final Inspection - Work Order Release



010667

### Job BOM

| Part / Item     | Component Name                   | Quantity       | Operation                          | Container |
|-----------------|----------------------------------|----------------|------------------------------------|-----------|
| D350-748-243TRN | Crosstube Installation, High Aft | 1 pcs (1 ea)   | 110-Crosstubes - Bend - 1          | 5161760   |
| AETC-1032       | Insert                           | 1 Ea (1 ea)    | 200-Crosstubes - 5 - B4B           |           |
| D3502-1         | Support                          | 2 pcs (2 ea)   | 200-Crosstubes - 5 - B4B           |           |
| D5123-7         | Clamp Cushion                    | 2 pcs (2 ea)   | 200-Crosstubes - 5 - B4B           |           |
| MS21920-20      | Clamp                            | 2 Ea (2 ea)    | 200-Crosstubes - 5 - B4B           |           |
| NAS1149C0363R   | Washer                           | 1 Ea (1 ea)    | 200-Crosstubes - 5 - B4B           |           |
| MS51958-63      | Screw                            | 1 pcs (1 ea)   | 200-Crosstubes - 5 - B4B           |           |
| AN4-41A         | Bolt                             | 8 Ea (8 ea)    | 220-Packaging 1-1 - Pick Kit - B4B | 5058981   |
| AN4-6A          | Bolt                             | 16 Ea (16 ea)  | 220-Packaging 1-1 - Pick Kit - B4B | 5163234   |
| AN5-32A         | Bolt                             | 4 Ea (4 ea)    | 220-Packaging 1-1 - Pick Kit - B4B | 5058983   |
| D3500-1         | Saddle                           | 4 pcs (4 ea)   | 220-Packaging 1-1 - Pick Kit - B4B | 5133673   |
| D3501-1         | Bushing                          | 16 pcs (16 ea) | 220-Packaging 1-1 - Pick Kit - B4B | 5178115   |
| MS21042L4       | Nut                              | 24 Ea (24 ea)  | 220-Packaging 1-1 - Pick Kit - B4B | 5157064   |
| MS21042L5       | Nut                              | 4 Ea (4 ea)    | 220-Packaging 1-1 - Pick Kit - B4B | 5166979   |
| NAS1149D0463J   | Washer                           | 32 Ea (32 ea)  | 220-Packaging 1-1 - Pick Kit - B4B | 5174671   |
| NAS1149D0563J   | Washer                           | 8 Ea (8 ea)    | 220-Packaging 1-1 - Pick Kit - B4B | 5174288   |

### Job Allocations

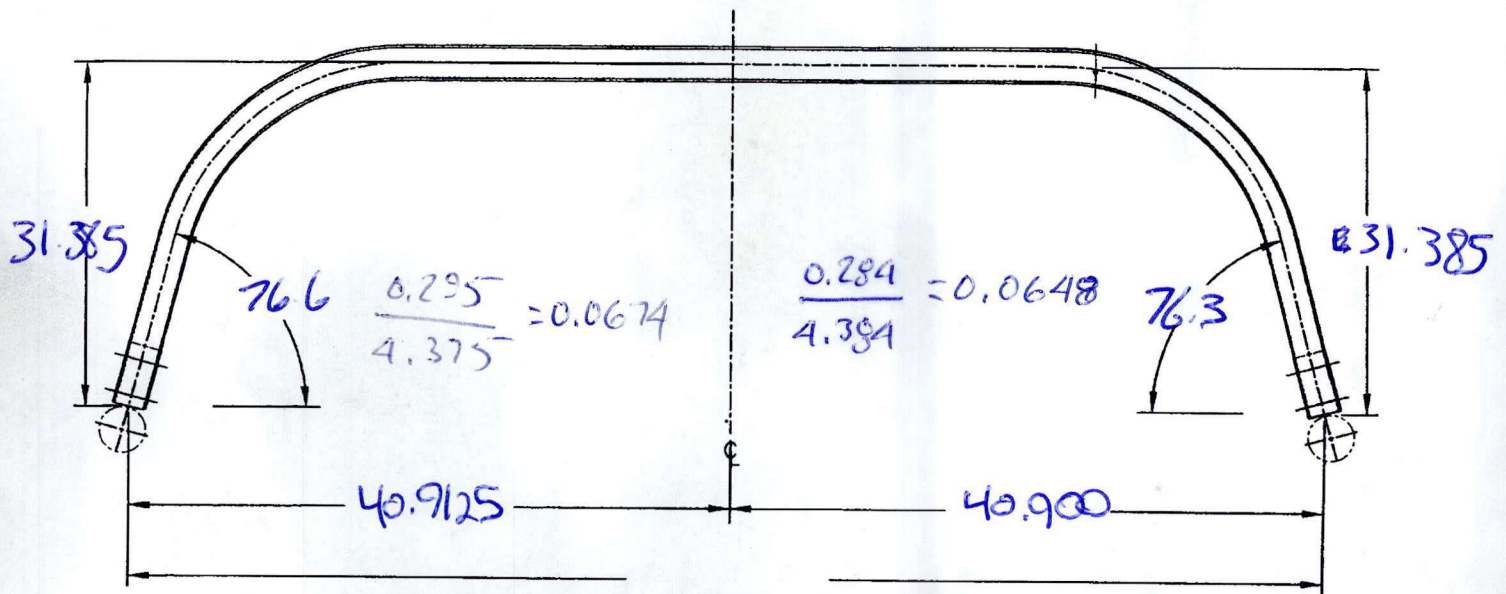
| Operation                          | Component Part  | Required    | Inventory | Allocated |
|------------------------------------|-----------------|-------------|-----------|-----------|
| 110-Crosstubes - Bend - 1          | D350-748-243TRN | 1           | 3         | 0         |
| 200-Crosstubes - 5 - B4B           | AETC-1032       | ① FM1373519 |           | 0         |
|                                    | D3502-1         | ② 5188464   | 0         | 0         |
|                                    | D5123-7         | ② F163264   | 255       | 0         |
|                                    | MS21920-20      | ② 5103843   | 103       | 0         |
|                                    | MS51958-63      | ① FM134862  | 46        | 0         |
|                                    | NAS1149C0363R   | ① 5181423   | 495       | 0         |
| 220-Packaging 1-1 - Pick Kit - B4B | AN4-41A         | 8           | 337       | 0         |
|                                    | AN4-6A          | 16          | 1,001     | 0         |
|                                    | AN5-32A         | 4           | 385       | 0         |
|                                    | D3500-1         | 4           | 59        | 0         |
|                                    | D3501-1         | 16          | 322       | 0         |
|                                    | MS21042L4       | 24          | 4,161     | 0         |
|                                    | MS21042L5       | 4           | 899       | 0         |
|                                    | NAS1149D0463J   | 32          | 5,185     | 0         |
|                                    | NAS1149D0563J   | 8           | 1,980     | 0         |

### Part Specifications

Specifications could not be found.

|                                                        |  |                     |                     |
|--------------------------------------------------------|--|---------------------|---------------------|
| <b>DART AEROSPACE LTD</b>                              |  | <b>Work Order:</b>  |                     |
| <b>Description:</b> Crosstube High Aft, SS (AS350/355) |  | <b>Part Number:</b> | <b>D350-748-203</b> |
| <b>Inspection Dwg:</b> D350-748-243 <b>Rev:</b> A      |  | <b>Page 1 of 1</b>  |                     |

| Required Dimension | Min   | Max   |
|--------------------|-------|-------|
| Height             | 31.10 | 31.60 |
| 1/2 Span           | 40.77 | 41.03 |
| Angle              | 75    | 77    |
| Total Span         | 81.54 | 82.06 |
| Bending Passes     | 7     | --    |
| Crushing           | --    | 8%    |
| Twist              | --    | 0.38  |



|                | Side A      | Side B |
|----------------|-------------|--------|
| Bending Passes |             |        |
| Crushing       | 6.7%        | 6.5%   |
| Comments       | twist 0.130 |        |
|                |             |        |
|                |             |        |
|                |             |        |

2.040  
2.335

2.050  
2.334

|                 |             |
|-----------------|-------------|
| QC15 Inspection | DAS 68      |
| Date            | MAY 23 2019 |

| Rev | Date     | Change    | Revised by | Approved |
|-----|----------|-----------|------------|----------|
| A   | 15.09.09 | New Issue | KJ         |          |



1.32  
1.37

1.334  
1.020

1.334  
1.020

1.334  
1.020

1.334



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## POHB043592



**Supplier:** SKY002-VC  
Skyservice  
6120 Midfield Road  
Mississauga  
ON  
L5P 1B1 Canada  
Phone: 905-678-5636  
Fax: 905-678-5841

**Attention:** Jenne, Heather

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**PO No:** POHB043592

**PO Date:** 5/30/19

**Due Date:** 5/30/19

**Purchase Order  
Revision:**

**Revision Date:**

**Ship-To Contact:** Phone:

**Via:** Ground

**Pynt Terms:** Net 30

**Freight Terms:**

**Special Comments:**

### Items

| Line Item         | Job    | Part         | Description                                                                                                                                                                                                                                                                                                                                            | Status | Account | Due Date | Order Quantity | Received Quantity | Balance  | Unit Price (CAD) | Extended Price  |
|-------------------|--------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|----------|------------------|-----------------|
| 1                 | 194991 | D212-664-101 | Fwd Crosstube - High<br>: TC STC SH01-9 Issue 3, FAA<br>STC SR01298NY 09/01/08, EASA<br>STC EASA.IM.R.S.01304 07/03/06,<br>DGAC MEXICO STC IA-316/2015<br>15/06/17<br>*** WEAR LATEX GLOVES WHEN<br>HANDLING CROSSTUBE*** Liquid<br>Penetrant Inspection as per QSI<br>038 LPI as per ASTM 1417 Level 2<br>Attach copy of NDT results to work<br>order | Firmed | -       | 5/30/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$115.00/pcs     | \$115.00        |
|                   | 194988 |              | IX JUN 03 2019                                                                                                                                                                                                                                                                                                                                         | Firmed | -       | 5/30/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$115.00/pcs     | \$115.00        |
|                   | 194989 |              | IX JUN 03 2019                                                                                                                                                                                                                                                                                                                                         | Firmed | -       | 5/30/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$115.00/pcs     | \$115.00        |
|                   | 194990 |              | IX JUN 03 2019                                                                                                                                                                                                                                                                                                                                         | Firmed | -       | 5/30/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$115.00/pcs     | \$115.00        |
| <b>Sub Total:</b> |        |              |                                                                                                                                                                                                                                                                                                                                                        |        |         |          | <b>4</b>       | <b>0</b>          | <b>4</b> |                  | <b>\$460.00</b> |

|                   |        |              |                                                                                                                                                                                                                            |        |   |         |          |          |          |              |                 |
|-------------------|--------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|---------|----------|----------|----------|--------------|-----------------|
| 2                 | 191000 | D350-748-103 | AS350 / AS355 Stainless Steel<br>Fwd Crosstube<br>: TC STC SH06-27 Issue 2, FAA<br>STC SR02359NY 11/03/04, EASA<br>STC EASA.10016903 Revision 2<br>10/09/03, BRAZIL 2009S04-04<br>09/04/06<br>ISSUE P/O TO SKY<br>SERVICE: | Firmed | - | 5/30/19 | 1 pcs    | 0 pcs    | 1 pcs    | \$115.00/pcs | \$115.00        |
|                   | 191080 |              | IX JUN 03 2019                                                                                                                                                                                                             | Firmed | - | 5/30/19 | 1 pcs    | 0 pcs    | 1 pcs    | \$115.00/pcs | \$115.00        |
|                   | 190999 |              | IX JUN 03 2019                                                                                                                                                                                                             | Firmed | - | 5/30/19 | 1 pcs    | 0 pcs    | 1 pcs    | \$115.00/pcs | \$115.00        |
|                   | 191081 |              | IX JUN 03 2019                                                                                                                                                                                                             | Firmed | - | 5/30/19 | 1 pcs    | 0 pcs    | 1 pcs    | \$115.00/pcs | \$115.00        |
| <b>Sub Total:</b> |        |              |                                                                                                                                                                                                                            |        |   |         | <b>4</b> | <b>0</b> | <b>4</b> |              | <b>\$460.00</b> |





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER

## POHB043592



### Items

| Line Item         | Job    | Part         | Description                                                                                                                                                                                              | Status | Account | Due Date | Order Quantity | Received Quantity | Balance  | Unit Price (CAD) | Extended Price  |
|-------------------|--------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|----------------|-------------------|----------|------------------|-----------------|
| 3                 | 193226 | D350-748-203 | AS350 / AS355 Stainless Steel Aft Crosstube<br>: TC STC SH06-27 Issue 2, FAA STC SR02359NY 11/03/04, EASA STC EASA.10016903 Revision 2 10/09/03, BRAZIL 2009S04-04 09/04/06<br>ISSUE P/O TO SKY SERVICE: | Firmed | -       | 5/30/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$115.00/pcs     | \$115.00        |
|                   | 191001 |              | 1X JUN 03 2019                                                                                                                                                                                           | Firmed | -       | 5/30/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$115.00/pcs     | \$115.00        |
|                   | 191002 |              | 1X JUN 03 2019                                                                                                                                                                                           | Firmed | -       | 5/30/19  | 1 pcs          | 0 pcs             | 1 pcs    | \$115.00/pcs     | \$115.00        |
| <b>Sub Total:</b> |        |              |                                                                                                                                                                                                          |        |         |          | <b>3</b>       | <b>0</b>          | <b>3</b> |                  | <b>\$345.00</b> |

**Grand Total: \$1,265.00**

### Order Notes

Procurement Quality Clauses  
A005 right of entry  
A012 chemical and physical test report  
A016 personnel qualification  
A017 raw material identification (as applicable)

A022 Apical Processing  
A024 process certifications  
A026 certification of material conformance

A041 quality management system  
A042 dart notification by supplier  
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

Plex 6/3/19 8:15 AM Dart.Guerin.Kimberley

**skyservice****Work Order Traveler**

Sky Service F.B.O. Inc.

10105 Ryan Avenue, Dorval, Quebec, H9P 1A2

TCCA AMO 53-89 / EASA 145.7142 / BDA AMO 385

|                          |                               |               |                         |
|--------------------------|-------------------------------|---------------|-------------------------|
| WO #: MWO40600           | Customer: Dart Aerospace Ltd. | Dept: NDT YUL | Reference: POHB043592 ✓ |
| Descr:                   | PN:                           | S/N:          | Qty: 1                  |
| Make:                    | Model:                        | Reg:          | A/C S/N:                |
| TSN:                     | CSN:                          | TSO:          |                         |
| Task: <b>UNSCHEDULED</b> |                               |               | Sequence: 1             |

**Work Required:**

CARRY OUT NDT INSPECTION (LIQUID PENETRANT) ON 11 CROSSTUBES

ITEM ID: D350-748-203 AS350/AS355 STAINLESS STEEL AFT CROSSTUBE

1 - WORK ORDER ID#: 191002 ✓

2 - WORK ORDER ID#: 191001 ✓

3 - WORK ORDER ID#: 193226 ✓

DAS  
68  
9-89

ITEM ID: D350-748-103 AS350/AS355 STAINLESS STEEL FWD CROSSTUBE

4 - WORK ORDER ID#: 190999 ✓

5 - WORK ORDER ID#: 191081 ✓

6 - WORK ORDER ID#: 191000 ✓

7 - WORK ORDER ID#: 191080 ✓

ITEM ID: D212-664-101 FWD CROSSTUBE - HGH

8 - WORK ORDER ID#: 194991 ✓

9 - WORK ORDER ID#: 194990 ✓

10 - WORK ORDER ID#: 194989 ✓

11 - WORK ORDER ID#: 194988 ✓

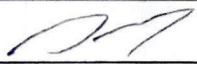
**RECEIVED**

JUN 03 2019

**DART AEROSPACE LTD.**

|                                                                                                |              |                |                                                                                            |         |        |
|------------------------------------------------------------------------------------------------|--------------|----------------|--------------------------------------------------------------------------------------------|---------|--------|
| <b>Action Taken:</b>                                                                           |              | Date:          | Initial/Stamp:                                                                             |         |        |
| LIQUID PENETRANT INSPECTION CARRIED OUT ON ITEMS LISTED ABOVE (ITEMS 1-11) AS PER ASTM1417M-16 |              | 30 MAY<br>2019 | <br>✓ |         |        |
| NO CRACK FOUND                                                                                 |              |                |                                                                                            |         |        |
| PEN ZL-37, MPO23206, CLEANER SKC-S MPO15030, EMU. MPO15896, DEV. MPO23451, UV LIGHT M-20142    |              |                |                                                                                            |         |        |
| Description                                                                                    | Location P/N | Qty            | Batch                                                                                      | S/N Off | S/N On |
| - NIP -                                                                                        |              |                |                                                                                            |         |        |
|                                                                                                |              |                |                                                                                            |         |        |
|                                                                                                |              |                |                                                                                            |         |        |
|                                                                                                |              |                |                                                                                            |         |        |
|                                                                                                |              |                |                                                                                            |         |        |
|                                                                                                |              |                |                                                                                            |         |        |

I certified that the maintenance described above has been performed in accordance with the applicable standard of airworthiness.

|                                                                                                |                                                                                                        |       |
|------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-------|
| Signature:  | ACA/SCA Stamp<br> | Date: |
| Name: <b>ANTONINO MARCHETTA</b>                                                                |                                                                                                        |       |



## 4.0 WEIGHT AND BALANCE

The following weight and balance information is for Dart crosstube installations only. This data should be similar to the existing installation. Differences from the parts removed are the responsibility of the installer.

| DART CROSSTUBE               | FWD/AFT | WEIGHT               | STA                  | MOMENT                    |
|------------------------------|---------|----------------------|----------------------|---------------------------|
| D350-748-101<br>D350-748-103 | Fwd     | 35.2 lb<br>(16.0 kg) | 106.3 in<br>(2.70 m) | 3742 lb-in<br>(43.2 kg-m) |
| D350-748-201<br>D350-748-203 | Aft     | 34.7 lb<br>(15.7 kg) | 162.4 in<br>(4.12 m) | 5635 lb-in<br>(64.7 kg-m) |

## 5.0 PARTS LIST

| Qty<br>-101 | Qty<br>-103 | Qty<br>-201 | Qty<br>-203 | Part Number   | Description                                      |
|-------------|-------------|-------------|-------------|---------------|--------------------------------------------------|
| X           |             |             |             | D350-748-101  | CROSSTUBE INSTALLATION, AS 350/355 HIGH FWD      |
|             | X           |             |             | D350-748-103  | CROSSTUBE INSTALLATION, AS 350/355 HIGH FWD (SS) |
|             |             | X           |             | D350-748-201  | CROSSTUBE INSTALLATION, AS 350/355 HIGH AFT      |
|             |             |             | X           | D350-748-203  | CROSSTUBE INSTALLATION, AS 350/355 HIGH AFT (SS) |
| 1           |             |             |             | D350-748-141  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH FWD          |
|             | 1           |             |             | D350-748-143  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH FWD (SS)     |
|             |             | 1           |             | D350-748-241  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH AFT          |
|             |             |             | 1           | D350-748-243  | CROSSTUBE ASSEMBLY, AS 350/355 HIGH AFT (SS)     |
| *2          | *2          | *2          | *2          | D3502-1       | SUPPORT                                          |
| *2          | *2          | *2          | *2          | D5123-7       | CLAMP CUSHION                                    |
| *1          |             | *1          |             | AELS-1032-225 | INSERT                                           |
|             | *1          |             | *1          | AETC-1032     | INSERT                                           |
| *2          | *2          | *2          | *2          | MS21920-20    | CLAMP (OR MS21920-21/-22)                        |
| *1          |             | *1          |             | MS27039-1-10  | SCREW                                            |
|             | *1          |             | *1          | NAS1685-3-8   | SCREW (OR MS51958-63)                            |
| *1          |             | *1          |             | NAS1149D0363J | WASHER (OR AN960JD10)                            |
|             | *1          |             | *1          | NAS1149C0363R | WASHER (OR AN960C10)                             |
| 4           | 4           | 4           | 4           | D3500-1       | SADDLE                                           |
| 16          | 16          | 16          | 16          | D3501-1       | BUSHING                                          |
| 16          | 16          | 16          | 16          | AN4-6A        | BOLT                                             |
| 8           | 8           | 8           | 8           | AN4-41A       | BOLT                                             |
| 4           | 4           | 4           | 4           | AN5-32A       | BOLT                                             |
| 32          | 32          | 32          | 32          | NAS1149D0463J | WASHER (OR AN960JD416)                           |
| 8           | 8           | 8           | 8           | NAS1149D0563J | WASHER (OR AN960JD516)                           |
| 24          | 24          | 24          | 24          | MS21042L4     | NUT (OR MS21042-4)                               |
| 4           | 4           | 4           | 4           | MS21042L5     | NUT (OR MS21042-5)                               |

\* REFERENCE ONLY. PARTS ARE INCLUDED IN D350-748-141/-143/-241/-243 ASSEMBLIES ABOVE

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Revision: C

Date: 15.02.25